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Attorney Docket No.: 9099-4

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In: Robert D. Black

Group: 1641

Serial No.: 10/005,889

Examiner: Gary W. Counts

Filed: November 7, 2001

Confirmation No.: 7939

For: CIRCUITS FOR IN VIVO DETECTION OF BIOMOLECULE  
CONCENTRATIONS USING FLUORESCENT TAGS

December 23, 2004

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**AMENDMENT**

Sir:

Applicant provides the present Amendment to address the issues raised in the Official Action mailed September 23, 2004. Applicant respectfully requests entry of this Amendment and allowance of the application.

It is not believed that an extension of time and/or additional fee(s), including fees for additional claims, are required, beyond those that may otherwise be provided for in documents accompanying this paper. In the event, however, that an extension of time is necessary to allow consideration of this paper, such an extension is hereby petitioned under 37 C.F.R. §1.136(a). Any additional fees believed to be due in connection with this paper may be charged to our Deposit Account No. 50-0220.

**Amendments to the Specification** are reflected on page 2 of this paper.

**Amendments to the Claims** are reflected in the listing of claims, which begins on page 3 of this paper.

**Remarks** begin on page 6 of this paper.

**radiation through a bio-fouling tissue on the optical radiation source and the optical radiation detector,**

which is not disclosed by the cited references. For example, Santini discusses using a bio-compatible layer to cover the sensor, which as understood by Applicant is to prevent the deposition of a bio-fouling tissue. Accordingly, Santini appears to avoid having to transmit through a bio-fouling tissue.

New Claim 30 recites in-part: "a chronically implantable configured for *in vivo* implantation for at least six months," which is not disclosed by the cited references. For example, as discussed above Crowley focuses on short-term interventional devices (such as catheters).

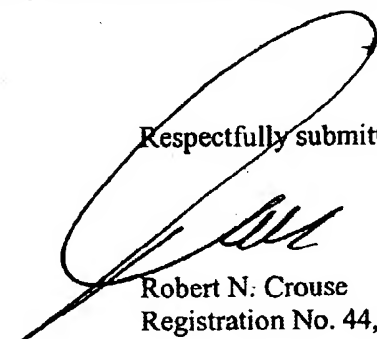
New Claim 32 recites in-part that "the processor circuit is configured to control the release of labeled binding molecules for excitation by the first optical radiation." None of the cited references disclose, for example, the controlled release of labeled binding molecules.

New Claim 33 recites in-part that "the processor circuit is configured to enable the optical radiation detector a selectable time interval after enabling the optical radiation source." None of the cited references disclose, for example, the controlled release of labeled binding molecules.

**CONCLUSION**

Applicant has amended several of the claims and the specification in response to the issues raised in the Official Action. Applicant has also shown herein that the cited references do not disclose the recitations of the pending and new claims. Accordingly, Applicant respectfully requests withdrawal of the rejections and the allowance of all claims in due course. If any informal issues arise, the Examiner is invited to contact the undersigned by telephone.

Respectfully submitted,



Robert N. Crouse  
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